



**{In Archive} RE: Exempt Aquifer Question**

**Brad Cross** to: Ray Leissner

09/14/2007 03:31 PM

From: "Brad Cross" <BCross@lbg-guyton.com>  
To: Ray Leissner/R6/USEPA/US@EPA  
Archive: This message is being viewed in an archive.

Ray, you are a dear! Exactly what I needed! THANK YOU so very much and have a wonderful weekend! Brad

-----Original Message-----

From: Leissner.Ray@epamail.epa.gov [mailto:Leissner.Ray@epamail.epa.gov]  
Sent: Friday, September 14, 2007 2:19 PM  
To: Brad Cross  
Subject: Re: Exempt Aquifer Question

Hi Brad

We don't have a form or forms to complete. The application from the applicant to the state simply describes what portion(s) of what aquifers they contend qualify for exemption. They state the purpose for the exemption, and those criteria, the list of which you can find at 40 CFR 146.4, which qualifies the formation(s) identified to be exempted. The applicant then attaches all documentation relevant to supporting that claim. The evidence will extend from a detailed description of the formation(s), top bottom and sides, cross-sections, etc., the evidence necessary to explain the reason for the areal extent of the proposed exemption boundaries (i. e. mining zone extent / volumes to be injected, migration, etc.), and documentation to reveal the fluid/formation compatibility and migration potential. There is also a minimum 1/4 mile AOR type of review around the exterior boundaries of the proposed exemption. The state may want to go further (1/2 mile or further) . They can if they want. We can if we want. The applicant and state are expected to take the proposal through a public participation process. We also want to know about current and potential water sources and uses in the vicinity, potential for growth, etc..

If you are talking about a relatively shallow operation such as uranium, the state and NRC usually requires a restoration plan that brings the formation as close to background as possible, but that is strictly a state requirement. EPA wants to see an exemption with boundaries large enough so that when injection stops and the plume migrates over time, by the time the dispersing plume contacts a non-exempted USDW, it causes no violation of 40 CFR 144.12. That can equate into a monitoring plan. For uranium, the state can and does usually require monitoring wells encircle the exempted zone to ensure no escape into a non exempted zone.

An exemption viewed by the state as having merit usually develops as more details are revealed in the scrutiny of the application. EPA often concurrently and informally reviews an application along side the state, at the request of the state, to ensure all bases are satisfactorily covered before the state formally submits it to EPA for approval.

Hope this helps.

Ray Leissner, Env. Eng.  
Ground Water / UIC Section (6WQ-SG)

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USEPA, Region 6

"Brad Cross"  
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09/12/2007 07:47  
AM

Ray Leissner/R6/USEPA/US@EPA  
To  
cc  
Subject  
Exempt Aquifer Question

Good Morning Ray,

Hope this finds you doing great sir! Ray, I've got a question for you -- I realize that while EPA can grant an aquifer exemption, that TCEQ must review and approve the exemption as well. However, I can't seem to find anything at all on guidelines of what must be submitted to apply for the exemption.

Do you have anything at all with respect to guidance and/or an application package? Has there been a submittal in the past which you know of that was "model" and provided all of the information that EPA and TCEQ would need? In other words, something we could use to fashion a submittal after?

Thanks for any insight you might have Ray!

Brad